

ABSTRACT OF THE DISCLOSURE

This invention relates to newly identified polynucleotides and polypeptides in the phytic acid biosynthetic pathway, variants and derivatives of same; methods for making the polynucleotides, polypeptides, variants, derivatives and antagonists. In particular the invention relates to polynucleotides and polypeptides of the inositol polyphosphate kinase gene family. In particular this invention relates to using the newly identified polynucleotides and polypeptides to modulate the phytic acid biosynthesis in such a way as to decrease phytate and/or increase non-phytate phosphorous, especially in corn or soy animal feedstuffs.

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